

What Is Claimed Is:

1 1-2 A multi-rate transmission apparatus wherein a modulation system and a coding ratio are varied in accordance with a modulation operation mode given thereto from the outside
5 to allow a transmission operation with a single clock signal inputted from the outside, comprising:

data processing means for reading in data with a bit width suitable for the modulation system;

coding means for performing coding processing parallelly
10 for the data read in by said data processing means; and

transmission means for transmitting the data, for which the coding processing has been performed, in accordance with the varied modulation system and coding ratio.

2. A multi-rate transmission apparatus as claimed in
15 claim 1, wherein said data processing means includes:

a transmission memory for storing transmission data of m-bit strings where m is a natural number and varies in accordance with the modulation system;

means for assembling the data of m-bit strings into data
20 of n-bit strings fixed to be used for coding processing, n being a natural number; and

a memory for temporarily storing the data of n-bit strings.

3. A multi-rate transmission apparatus as claimed in
25 claim 1, wherein said parallel coding means includes:

a register set for storing data of n-bit strings, n being

a natural number;

5 a plurality of convolution coding circuits for fetching
the data of n-bit strings from said register set and performing
convolution processing for the data of n-bit strings in a unit
of n-bit strings fixed;

a puncture circuit for performing puncture processing
for coding results outputted from said plurality of convolution
coding circuits and outputting coded data; and

10 a data discrimination circuit for discriminating bits
corresponding to the coded data outputted from said puncture
circuit.

4. A multi-rate transmission apparatus as claimed in
claim 1, wherein said transmission means includes:

15 a transmission control circuit for determining a
transmission timing;

a modulation data allocation circuit for allocating the
coded data to modulation data; and

a transmission circuit for transmitting the modulation
data at a clock timing from said transmission control circuit.

03760 0001500
R2
Cont.